

### AMENDMENTS TO THE SPECIFICATION

Please replace the abstract at page 64, , with the following rewritten abstract:

#### ABSTRACT

A positive electrode active material for a lithium secondary battery containing a lithium-cobalt composite oxide, ~~which has a large volume capacity density, has a high safety and is excellent in charge and discharge cyclic durability, and its production process, are provided.~~ [[A]] The lithium-cobalt composite oxide is represented by the formula  $\text{Li}_p\text{Co}_x\text{M}_y\text{O}_z\text{F}_a$  (wherein M is a transition metal element other than Co or an alkaline earth metal element,  $0.9 \leq p \leq 1.1$ ,  $0.980 \leq x \leq 1.000$ ,  $0 \leq y \leq 0.02$ ,  $1.9 \leq z \leq 2.1$ ,  $x+y=1$  and  $0 \leq a \leq 0.02$ ) and ~~comprising~~ contains a mixture containing substantially spherical hard first particles of lithium-cobalt composite oxide having such a sharp particle size distribution ~~that the volume basis cumulative size D10 is at least 50% of the average particle size D50, and the volume basis cumulative size D90 is at most 150% of the average particle size D50, and second~~ particles of lithium-cobalt composite oxide filling the space among the first particles, in a mass ratio of first particles/second particles of from 1/2 to 9/1, ~~and process for producing the same.~~